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Research article

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Type specimen designation for *Onthophagus* (*Colobonthophagus*) *aenescens* (Wiedemann, 1823) and *O.* (*Colobonthophagus*) *urellus* Boucomont, 1920 with notes on the synonymy (Coleoptera: Scarabaeidae: Scarabaeinae)

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Abstract. The taxonomic position of four species of *Onthophagus* (*Colobonthophagus*) Balthasar, 1963 was studied. The neotype of *O.* (*C.*) *aenescens* (Wiedemann, 1823) is designated here, with *O.* (*C.*) *volucer* Balthasar, 1959 as a junior subjective synonym of this species. Furthermore, *O.* (*C.*) *usurpator* Balthasar, 1960 was found to be a junior subjective synonym of *O.* (*C.*) *urellus* Boucomont, 1920. The lectotype and two paralectotypes of *O.* (*C.*) *urellus* Boucomont, 1920 are designated. We show the first record of *O.* (*C.*) *urellus* of Nepal and the Palaearctic region.

Key words. Taxonomy, types, new synonymy, neotype designation, lectotype designation, Onthophagini, Oriental Region, Palaearctic Region.

INTRODUCTION

Onthophagus (*Colobonthophagus*) *aenescens* (Wiedemann, 1823) was originally described as *Copris aenescens* based on five male specimens from Bengal (Wiedemann 1823: 15). During the 1943 bombardment of Hamburg the original type series was lost (Abraham & Husemann pers. comm.). Weidner (1976: 87) stated: "Die Coleopterensammlung des Zoologischen Museums Hamburg wurde bis auf die in Alkohol aufbewahrten Larven 1943 beim Brand des Museums vollständig vernichtet." – (translated from German: The collection of beetles at the Zoological Museum of Hamburg was completely destroyed in the fire at the Museum in 1943, except for the larvae preserved in alcohol.).

The original names *Copris aenescens* Wiedemann, 1823 (p. 177, Nr. 694/695) and *Onthophagus aenescens* (p. 232, Nr. 1624/1625) are not recorded in the catalogue "Verzeichnis der Typen und Typoide" (Weidner 1976: 134).

According to Evenhuis (2008) and the rules of ICZN (1999), a neotype should be designated if the original type series is lost or damaged and designation of the neotype is necessary for clarification of taxonomic status of the species. The position of *O. aenescens* in the subgenus *Colobonthophagus* Balthasar, 1963 (Scheuern, 1995) and the status of *Onthophagus* (*Colobonthophagus*) *volucer* Balthasar, 1959 syn. nov. as a junior subjective synonym of *O.* (*C.*) *aenescens* (Wiedemann, 1823) call for the designation of the neotype for the correct application of the specific name.

After studying the holotype of *Onthophagus volucer* Balthasar, 1959, and 155 specimens of *Onthophagus* (*C.*) *aenescens* (Wiedemann, 1823), we are convinced that this taxon is a junior subjective synonym of *O.* (*Colobonthophagus*) *aenescens* (Wiedemann, 1823). Both taxa show similar morphology of the head, punctation of the pronotum, characteristics of elytra and surface of the body (Fig. 1A–F). The aedeagus and the lamella copulatrix also show the same structure (Fig. 2A, C). Furthermore, the type localities of both taxa are situated close to each other (Fig. 6).

We also find *O.* (*Colobonthophagus*) *usurpator* Balthasar, 1960 to be a junior subjective synonym of *O.* (*Colobonthophagus*) *urellus* Boucomount, 1920; this is based on examination of three syntypes of *O.* (*C.*) *urellus*, seven specimens from South India, one male from Nepal and the holotype of *O.* (*C.*) *usurpator*. Both taxa show similarities in all morphological characters of the genitalia, pronotum and in the punctation. The armatures of the head are different from other species of the subgenus (Figs 3A–F, 4A, C). In the present study we designate the lectotype (♂ major) of *Onthophagus* (*Colobontho-*

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phagus) *urellus* Boucomount, 1920 deposited at the Muséum national d'Histoire naturelle, Paris (MNHN).

This paper provides an overview of the distributions of the two *Onthophagus* species in the Oriental and Palaearctic regions (Middle Asian regions) (Fig. 6).

The revision of the subgenus *Colobonthophagus* Balthasar, 1963 by Scheuern (1995, 1996) presents 27 species with keys separating *O.* (*C.*) *aenescens* and *O.* (*C.*) *urellus* from other species.

MATERIAL AND METHODS

The following acronyms identify the collections housing the examined material (curators in parentheses):

cAS	=	André Skale, Gera, Germany
cAW	=	Andreas Weigel, Wernburg, Germany
cAK	=	Andreas Kopetz, Eischleben, Germany
cAN	=	Alexander Napolov, Riga, Latvia
cDJ	=	Dieter Jungwirth, Ingolstadt, Germany
cJS	=	Joachim Schönfeld, Sinzig, Germany
cOH	=	Oliver Hillert, Schöneiche near Berlin, Germany
cPS	=	Paul Schoolmeesters, Herent, Belgique
HNHM	=	Hungarian Natural History Museum, Budapest, Hungary (Otto Merkl)
MFNB	=	Museum für Naturkunde Berlin, Germany (Johannes Frisch)
MHNG	=	Muséum d'Histoire Naturelle de Genève, Switzerland (Ivan Löbl)
MNHN	=	Muséum national d'Histoire naturelle, Paris, France (Olivier Montreuil)
NHMB	=	Naturhistorisches Museum, Basel, Switzerland (Matthias Borer)
NHMD	=	Natural History Museum of Denmark, Copenhagen, Denmark (Alexey Solodovnikov)
NMEG	=	Naturkundemuseum, Erfurt, Germany (Matthias Hartmann)
NMPC	=	National Museum, Prague, Czech Republic (Jiří Hájek)
PIME	=	Pontificio Istituto Missioni Estere (P.I.M.E.), Entomological Museum, Memphis, Detroit, Michigan (USA) Coll. Dr Carlo Brivio
RBINS	=	Royal Belgian Institute of Natural Sciences, Bruxelles, Belgium (Alain Drumont)
ZFMK	=	Zoologisches Forschungsmuseum Alexander Koenig, Bonn, Germany (Dirk Ahrens)
ZMH	=	Zoologisches Museum Hamburg, Germany (Martin Husemann)

Altogether, 156 specimens of *O.* (*C.*) *aenescens* and 12 specimens of *O.* (*C.*) *urellus* were studied (see material listed below). Remarks of the authors and comments are indicated in parentheses. The exact label data are cited for the type material only; individual labels are indicated (only for types) by double slash (//), individual lines on every label by single slash (/), [p] = preceding data within quotation marks are printed, [hw] = preceding data within quotation marks are handwritten.

Taxonomy and distribution

Onthophagus* (*Colobonthophagus*) *aenescens (Wiedemann, 1823)
Figs 1A–F, 2A–D, 5A–C, 6

Copris aenescens Wiedemann, 1823:13 (original description).
Onthophagus volucer Balthasar, 1959 [syn. nov.]: 190 (original description).
Onthophagus (s.str.) aenescens: Balthasar 1963: 264 (redescription).
Onthophagus (s.str.) *volucer* Balthasar, 1963: 586 (redescription); Bezdek & Hájek 2013:428 (catalogue, status); Frey 1973: 102 (redescription, type material).
Onthophagus (*Colobonthophagus*) *aenescens*: Scheuern 1995: 416 (stat. nov., key); Mittal 2000: 263 (distribution); Kabakov 2006: 162 (status); Mittal & Jain 2015: 395 (distribution); Ziani & Bezdek, 2016: 175 (catalogue, distribution); Löbl et al. 2006: 163 (catalogue, distribution).

Type locality of *O.* (*Colobonthophagus*) *aenescens* (Wiedemann, 1823): Bengalia, Burma.

Type material examined (2 specs)

Onthophagus aenescens

Neotype

BENGALEN • ♂ (NHMD, here designated): "Bengal. / Septbr. 1810. [hw] // Zool. Museum DK Copenhagen [p] / *O.* (*Colobonthophagus*) [p] / *aenescens* (WIED.) [hw] / J.SCHEUERN det.19 [p] 96 [hw] // *Onthophagus* (*Colobonthophagus*) [p, fat] // *aenescens* (WIEDEMANN, 1823) [p] // NEOTYPUS ♂ desig. 2022 [p, fat] // J. SCHÖNFELD & D. ROHWEDDER [p, red label]".

Onthophagus volucer

Holotype

BURMA • ♂ (NMPC): "Burma [Myanmar] / Tenass[erin] [hw] // Hoefer [hw] // Mus. Nat. Pragae [p] / 65 845 [hw] / Inv. [p, red label] // *Onthophagus* / *volucer* / ♂ n.sp. / Balth.[hw] / Holotypus [p, pink label] // *O.* (*Colobonthophagus*) [p] / *aenescens* WIED.) [hw] / J. SCHEUERN det.19 [p] 96 [hw] // *volucer* BALTH. / Syn.nov. / J. SCHEUERN det. [p] 96 [hw] // *O.* (*Colobonthophagus*) / *aenescens* / (WIEDEMANN 1823) ♂ / J. SCHÖNFELD det. 2017 [p]; // *O.* (*Colobonthophagus*) / *volucer* / BALTHASAR 1959/ syn. nov. / J. SCHÖNFELD det. 2017 [p]".

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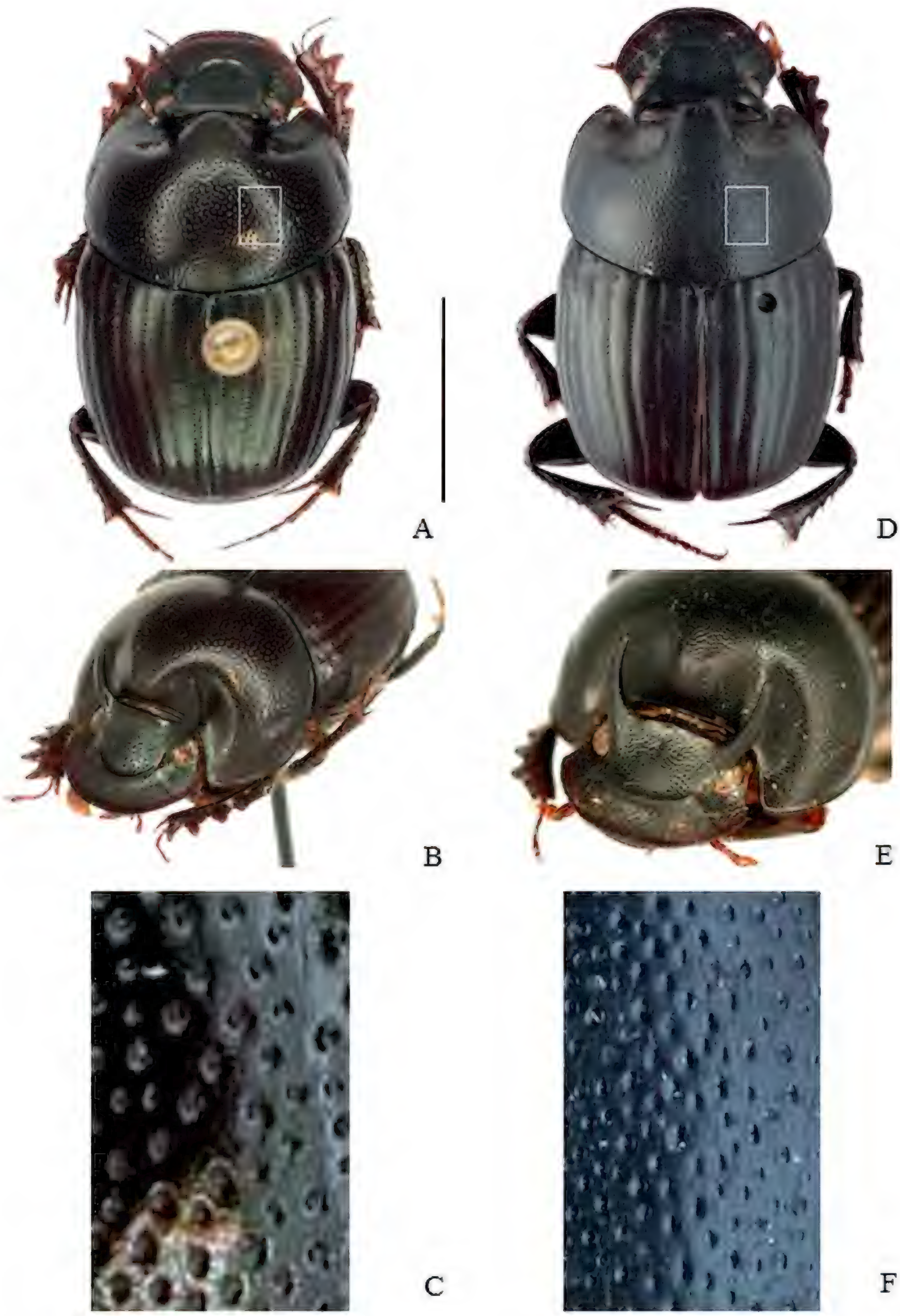


Fig. 1. A–C. *Onthophagus* (*Colobonthophagus*) *aenescens* (Wiedemann, 1823), neotype, ♂. **D–F**. *Onthophagus* (*Colobonthophagus*) *volucer* Balthasar, 1959 syn. nov., ♂. **A, D**. Habitus, dorsal view. **B, E**. Habitus, fronto-ventral view. **C, F**. Pronotal sculpture in dorso-lateral view with close-up of the punctation (C = top; F = sloping). Scale = 5 mm.

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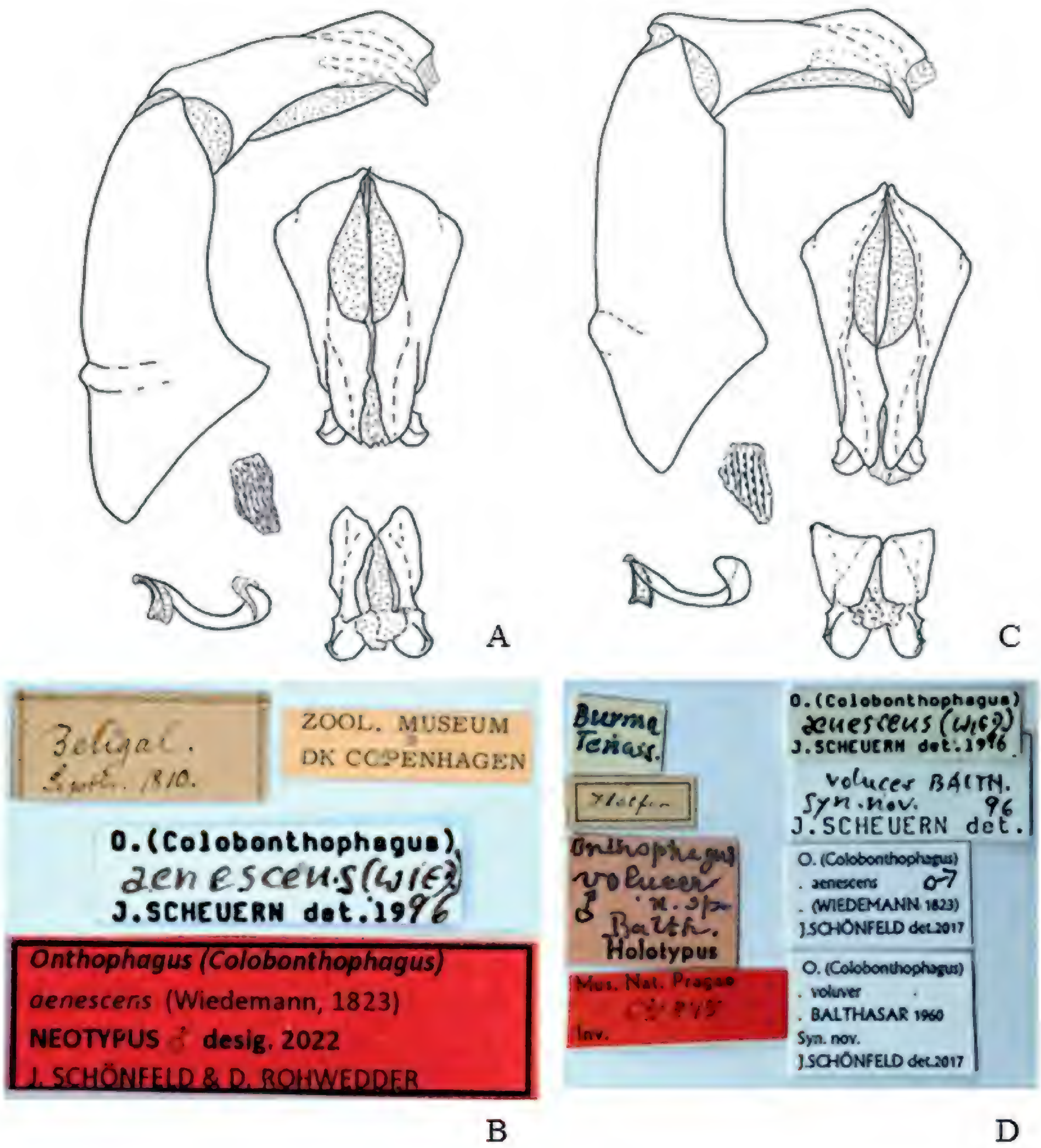


Fig. 2. A–B. *Onthophagus* (*Colobonthophagus*) *aenescens* (Wiedemann, 1823), neotype, ♂. **C–D**. *Onthophagus* (*Colobonthophagus*) *volucer* Balthasar, 1959 syn. nov., ♂. **A, C**. Left: Aedeagus, lateral view, raspula, lamella copulatrix, ventral view; right: Parameres, dorsal view & apical view. **B, D**. Labels.

Other material examined (154 specs)

BANGLADESH • EAST PAKISTAN [Bangladesh], Dinajpur, X-1969, Barbe', Paratype ♀, *Onthophagus volucer* Balt., G. FREY 1972; 1♀ (NHMB). EAST PAKISTAN [Bangladesh], Dinajpur, IV-1970, Barbe', *Onthophagus volucer* Balt. ♂, G. FREY 1969; 1♂ (NHMB). Bengala: Boldipukur, 6.1964 Grest leg., *O. aenescens* (WIED.) det. PITTINO; 2♂, 1♀ (cRP).

INDIA • [Nr.]26884, *flavicornis* meg. Germ., Zool. Mus. Berlin; 1♂ (MFNB). Assam, Nr. 26884, Zool. Mus. Berlin; 2♂, 3♀ (MFNB). Assam, Nr. 26884, *aenescens* Wied., West.[ermann], Zool. Mus. Berlin; 1♂ (MFNB). Assam, Westermann, Zool. Museum DK Copenhagen; 1♂ (NHMD), 1♂ (cJS). Assam, Kaziranga, 10.XII.1969, leg. G. PILLERI; 20♂, 34♀ (NMEG), 1♀ (ZFMK), 1♂, 1♀ (cAN), 2♂, 2♀ (cJS). [W Bengal] Barbaria; 1♀ (NHMD). Calcutta, 1938, Coll. Boucomont, Paris; 1♀ (MNHN). Calcutta, Ex Mus. V. LANSB.[ERGE], Coll. Boucomont, Paris; 1♀ (MNHN). Darjeeling D., Sonapur, Mahahandra Riv., Bhakta B., 9.-15.IX.1984; 1♀ (cJS). KHARI, [near] KASHINAGAR. W-BENGAL., leg. 26.I.1950. Rev.S. POLGAR 57, ex coll.: Ch.S.PAPP, *aenescens* Wied.; 1♂ (NHMB). Bengale (Mnisrech),

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aenescens det. Gillet; 1♀ (RBINS). Sirampur, Zool. Museum DK Copenhagen; 1♂ (NHMD), 1♀ (cJS). Sunderbunds, Coll. Boucomont; 1♀ (MFNB). Ex Mus. VAN LANSBERGE, ex coll. R. OBERTHÜR 1952, det. *aenescens* WIED.; 1♂ (MNHN).
Ex Museo E. HAROLD, *aenescens* WIED., G.J. ARROW vidit. 1906, ex Coll R. OBERTHÜR 1952; 1♂ (MNHN). Coll. J. Thomson, Coll.R.I.Sc.N.B.; 1♂ (RBINS). Coll. de Bonneuil, *flavicornis* Le Moult vendit; 1♂ (RBINS). *Onthophagus* (*s.str.*) *volucer* Balth. ♂, Dr. V. Balthasar det. 60; 1♂ (NHMB). Mus. S.S.T.L.; 1♂, 1♀ (NHMD).

NEPAL • Bheri / D: Banke, Nepalganj, Hotel Sneha, 28°02'53"N, 81°36'56"E, 125 m, 05.VII.2009, leg. A. Kopetz, LF #64; 2♂, 1♀ (cAK), 1♀ (cJS). Mahakali / D: Kanchanpur, Mahendranagar, Hotel Sweet Dream, N28°58´13", E81°11´01", 210 m, 02.VII. 2009, leg. A. Kopetz LF ,#60; 1♀ (cAK). Narayani Prov., Sauraha, Royal Chitwan Nat.-P., Rapti River, Ufer, 180 m NN, 27°34'80"N, 84°29'49"E, 18.04.2000, LF [light trap], A. Skale leg.; 2♂, 4♀ (cAS), 1♂, 1♀ (cJS).). Narayani Prov., Sauraha, Royal Chitwan Nat.-P., Rapti River, Ufer, 180 m NN, 27°34'80"N, 84°29'49"E, 18.04.2000, LF [light trap], A. Weigel leg.; 2♂, 2♀ (NMEG), 1♂ (cAW), 2♂ (cJS). Narayani Prov., Sauraha, Royal Chitwan Nat.-P., Rapti River, Ufer, 180 m NN, 27°34'80"N, 84°29'49"E, 18.04.2000, LF [light trap], F. Wolf leg.; 1♂, 1♀ (NMEG), 1♀ (cJS). Narayani Prov., Sauraha, Royal Chitwan Nat.-P., Rapti River, Ufer, 180 m NN, 27°34'80"N, 84°29'49"E, 16.-18.04.2000, LF [Light trap] A. Skale leg.; 1♀ (cAS), 1♀ (cJS), 1♂ (cOH). Narayani Prov., Sauraha, Royal Chitwan Nat.-P., Rapti River, Ufer, 180 m NN, 27°34'51"N, 84°29'30"E, 14.-15.V.2002, HF, leg. A. Kopetz; 1♀ (cAK). Chitwan distr., Royal Chitwan Nat.P., Island Jungle Resort, 29-30.X.1995, leg. L. Peregovits; 2♂, 2♀ (HNHM), 1♂ (ZFMK), 1♂, 2♀ (cJS). Royal Chitwan Nat.-P., 17. / 18.11.1998, SCHOOLMESTERS leg.; 1♀ (cJS). Royal Chitwan N.P., Island Resort, 17.-18.11.1998, [anonymous], 2♂ (cJS). Narayani Zone, Chitwan Distr., Chitwan N.P., Sauraha – Thati Bagh Mara, 200 – 500 m, leg. P. Cechovsky; 1♂, 4♀ (cDJ). Prov. Narayani, Chitwan: Gunganagar, 200 m, 27°39'N, 84°19'E, V.2005, leg. D. Ahrens; 1♀ (NMEG), 1♀ (cJS). Pokhara, 900 m, 2.-3.1984, Bhakta B.; 1♂ (NHMB), 1♂, 1♀ (cJS).

TIBET (China, Xizang) • THIBET, 600/1/ Coll. Melly; 1♂ (MHNG). THIBET, 501/87/ Coll. Jurine, *flavicornis* Germ.; 1♀ (MHNG).

Without exact data

Ex Mus. E. HAROLD, Coll. Boucomont; 5♂ (MNHN).
Bengala, *Aenescens*. ekke Type WIED., Zool. Museum DK Copenhagen; 1♀ (cJS).
Bengalie, Ex Mus. Thorey, BATES, Coll. Boucomont, Paris; 2♂, 2♀ (MNHN). Bengalia, Westermann; 1♀ (NHMD). Bengal. / Septbr. 1810., Zool. Museum DK Copenhagen, *O.* (*Colobonthophagus*) *aenescens* (WIED.); 1♀ (NHMD).

Neotype redescription

Male specimen from Bengal (Figs 1A–C, 2A–B)

Measurements (Fig. 1A–B). Length: 12.2 mm, width: 7.4 mm. Male major with two well developed horns, and pronotum with an anteromedian round prominence; moderately arched, mostly glabrous. Color blackish brown, with very moderately green metallic sheen. In dorsal view eyes broad oval; first elytra interval on base without recess, but in the first quarter with a small longitutinal elevation near suture. Antennal foot-stalks reddish brown, club segments of antenna yellowish.

Head. Clypeus broadly round, margin anteriorly distinctly reflexed, clypeofrontal carina moderately elevated but distinct, circlar, backwards reaching to the bases of two horns on vertex beneath well developed, oval eyes. In frontal view horns slightly divergent on base, softly incurved near apices, obliquely inclined backward. Vertex between horns with a thin, low carena, situated backward. Clypeus densely distinctly rugo-punctate, frons densely rugo-punctate, vertex and genae more densely rugo-punctate, building small, low ridges.

Pronotum (Fig. 1C) with a triangular, rounded anteromedian prominence, longitudinal midline missing; on each side, behind the horns, with a deep depression; anterior angles projected, rounded; lateral margins softly rounded, only slightly sinuate. Base rounded, only in the middle bordered, marginal line reaching the second striae of elytra. The middle of the disc with large, simple rounded, deep punctures; punctures with different diameters, mostly separated by one diameter, becoming compact at a longitudinal area in the middle from anteromedian prominence to the base. Punctures of anterior angles larger, more dense and more shallow, with some yellow, minute setae; depressions with minute, oval punctures. The sharp border of the base of the pronotum with a dense line of large punctures, reaching the hind angles.

Elytra. Striae broad, punctures small, transverse, weakly notching both margins of intervals; 7th striae distinctly curved in the middle, intervals slightly convex, very weakly micro-reticulated, everywhere densely and coarsely punctured, the distances between punctures are shorter than their diameters. The inner intervals with shallow, small punctures, each puncture bears a small granule at its anterior margin. Toward outer intervals the punctures becoming coarser and deeper, without granules, but with very short, fine, yellow-white setae. All intervals apical with some short, yellow setae.

Pygidium carinate at base, weakly convex, micro-reticulated, moderately sparsely punctated. Points moderately

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deep, with different diameters, and sub-regular in distribution, simply rounded, with some short, yellow setae.

PROTIBIAE with four strong outer teeth, apical spur blunt inner side straight, outer side curved to the obtuse tip, slightly bent downward.

METASTERNUM. Anterior declination weakly convex, disc plan, smooth, with a median longitudinal groove, apical ending with an oval depression. Anterior declination and ventral area with minute, shallow punctures.

AEDEAGUS and LAMELLA COPULATRIX (Fig. 2A).

Variation

Measurements (70 ♂♂, Length 10.8–12.2 mm; 86 ♀♀, Length 9.1–12.5 mm). In female and minor male vertex with reduced horns, with a narrow straight lamina between them. Pronotum with slight depressions and reduced anteromedian prominence, notched in female. Clypeus of female with very coarse, transverse rugose or subrugose punctures. There is only a weak tendency to variation in the punctures on the elytra.

Differential diagnosis

O. (*C.*) *aenescens* is very similar to *O.* (*C.*) *dama* (Fabricius, 1798) and *O.* (*C.*) *bengalensis* Harold, 1886. *O.* (*C.*) *aenescens* shows on dorsal surface large punctures separated from each other by approximately 1 diameter of a puncture. *O.* (*C.*) *bengalensis* and *O. (C.) dama* show very fine and sparse punctures separated further from each other (1–3 puncture diameters). *O.* (*C.*) *bengalensis* and *O.* (*C.*) *aenescens* have a completely bordered base of the pronotum, while *O.* (*C.*) *dama* has only a short remnant of a border in the middle of the base. The body of *O.* (*C.*) *aenescens* and *O.* (*C.*) *dama* show a green or brownish metallic sheen, the body of *O.* (*C.*) *bengalensis* is black without metallic sheen.

Distribution

Bangladesh (East Pakistan), India, Myanmar, Nepal, Tibet. (type locality of *O.* (*C.*) *volucer* Balthasar, 1959 syn. nov.: Burma [Myanmar], Tenass[erim]) (Fig. 6).

Taxonomic remarks

Based on four complete and one partial specimen Wiedemann (1823) described *Copris aenescens* from "Bengalia" and deposited the type material at the Zoologisches Museum Hamburg, where it was destroyed by fire in 1943. We have not found any types of this taxon in the Zoologisches Museum Hamburg. Only in MFNB, NHMB (Coll. FREY) and NHMD we have found some determined specimens, but no valid types. As no original material of *Onthophagus (Colobonthophagus) aenescens* exists, we here designate a neotype from specimens collected in the type locality Bengalia to clarify the taxonomic status and for nomenclatural stability according to Article 75.3 of the Code (ICZN 1999). The neotype is chosen from the collection of NHMD and deposited at the Natural History Museum of Denmark, Copenhagen (NHMD).

However, it was necessary to study the type material of *O.* (*C.*) *voluver* Balthasar, 1959 syn. nov. and a lot of well determined material of *O.* (*C.*) *aenescens* in order to eliminate confusions in Balthasar's key (Balthasar, 1963: 210, alt. 180 (193)) and with other closely related species.

The present study is based on the examination of 156 specimens of *O.* (*Colobonthophagus*) *aenescens* (Wiedemann, 1823) from Bangladesh, India, Myanmar, Nepal and Tibet. The old historic region Bengalia had no clearly defined borders, it apparently included several regions today called Bangladesh, West Bengal and some parts of Bihar, Jharkharnd, Tripuru and Odisha.

Some notes on the distribution have been published, but we are not in the position to verify them: Mittal (2000: 263): Himachal Pradesh; Mittal & Jain (2015: 395): Himachal Pradesh (Una), Uttarakhand (Dehradun), Uttar Pradesh (Faizabad), Bihar (Chapra, Pusa), W. Bengal (Purnea dist., Kolkata); Löbl et al. (2006: 163); Ziani & Bezděk (2016: 175): The same Indian states and Pakistan.

Balthasar described *O.* (*C.*) *voluver* syn. nov. based on a single male specimen (holotype), the female was unknown. Frey (1973: 102) studied 3 ♂♂ and 2 ♀♀ from East Pakistan (Bangladesh, Dinajpur, X.1969), described the female of *O.* (*C.*) *voluver* and incorrectly designated an allotype and paratypes, which are not valid as such. These specimens are deposited as follows: allotype in collection Dr. Carlo Brivio (P.I.M.E.), paratypes in collection G. Frey (NHMB).

The examined male holotype of *O. (C.) voluver* is conspecific with the series of specimens and the neotype of *O.* (*C.*) *aenescens*. They share the same morphology of aedeagus, lamella copulatrix, structures of the head, vertex armatures, pronotum punctation and body coloration. We cannot find any morphological characteristics to separate *O.* (*C.*) *aenescens* Wiedemann, 1823 from *O.* (*C.*) *volucer* Balthasar, 1959. Consequently, we consider *O.* (*C.*) *volucer* a junior subjective synonym of *O.* (*C.*) *aenescens*.

The neotype of *O.* (*C.*) *aenescens*, here designated, is chosen from the type locality Bengalia. Notable entomologists, for example G.J. Arrow, V. Balthasar, A. Boucomont, G. Frey, E. Harold and R. Pittino, have determined specimens especially from Bengalia as *O.* (*C.*) *aenescens*. They correspond with the diagnosis of the subgenus *Colobonthophagus* of Scheuern (1995), the diagnostic characters used in Balthasar (1963), the above redescribed taxon, and differs from all other species of the genus *Onthophagus*.

Among other morphological characters, all species of subgenus *Colobonthophagus* have large eyes with a horn or a small bulge beneath, and a swelling or a longish

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bulge on the base of the first elytral interval. The key of Scheuern (1995) listed characters of *O.* (*C.*) *aenescens*: Black or brownish, often with a metallic green sheen. Clypeus clearly rounded, base of pronotum only in the middle with clear marginal line. Dorsal surface everywhere densely and coarsely punctured, the distances of punctures are shorter than their diameters.

Onthophagus* (*Colobonthophagus*) *urellus Boucomont, 1920
(Figs 3A–F, 4A–D, 5D–F, 6)

Onthophagus urellus Boucomount, 1920: 310 (original description).
Onthophagus urellus var. *nilgirinus* Arrow, 1931: 298 (description, var.).
Onthophagus (*s.str.*) *usurpator* Balthasar, 1959: 190 (original description) [syn. nov.].
Onthophagus (*Colobonthophagus*) *urellus*: Scheuern 1995: 418 (listing, key, pictured); Scheuern 1996: 12 (key).
Onthophagus (*Colobonthophagus*) *usurpator*: Bezděk & Hájek 2013: 427 (status, catalogue); Mittal & Jain 2015: 402 (distribution).

Type locality of *O.* (*Colobonthophagus*) *urellus* Boucomont, 1920: BURMA [Myanmar]: Pegu.

Type material examined (4 specs)

Onthophagus (*Colobonthophagus*) *urellus*
Lectotype
MYANMAR • 1♂ major (MNHN, here designated): "Pegu [Myanmar] / Inde [hw] // Boucomont det. 19 [p] 19[hw] / *Onthophagus* / *urellus* n.sp. [hw] // TYPUS [p, pink label] // MUSÉUM PARIS / 1936 / COLL. A. BOUCOMONT [p] // SYNTYPE [p, red label]] // SYNTYPE / *Onthophagus* / *urellus* Boucomont, 1920 // MNHN / EC10031 // *Onthophagus* (*Colobonthophagus*) [p,fat] // urellus A. BOUCOMONT, 1920 [p] // LECTOTYPUS ♂desig. 2022 [p,fat] // J. SCHÖNFELD & D. ROHWEDDER [p, red label]".

Onthophagus (*Colobonthophagus*) *urellus*
Paralectotypes
MYANMAR • 1♂, 1♀ (MNHN, here designated): 1♂ minor (MNHN): "Pegu [Myanmar] / India [p] // Boucomont det. 19 [p] 20[hw] / *O. urellus* B. [hw] // ♂ [p] // TYPUS [p, pink label] // MUSÉUM PARIS / 1936 / COLL. A. BOUCOMONT [p] // SYNTYPE [p, red label] // SYNTYPE / *Onthophagus* / *urellus* Boucomont, 1920 // MNHN / EC10033 // *Onthophagus* (*Colobonthophagus*) [p,fat] // *urellus* A. BOUCOMONT, 1920 [p] // LECTOTYPUS ♂ desig. 2022 [p, fat] // J. SCHÖNFELD & D. ROHWEDDER [p, red label]". 1♀ (MNHN): "Pegu [Myanmar] / India_[p] // Boucomont det. 19 [p] 20 [hw] / *O. urellus* [hw] // ♀ [p] // TYPUS [p, pink label] // MUSÉUM PARIS / 1936 / COLL. A. BOUCOMONT [p] // SYNTYPE [p, red label] // SYNTYPE / *Onthophagus* / *urellus* Boucomont, 1920 // MNHN / EC10032 // *Onthophagus* (*Colobonthophagus*) [p, fat] // *urellus* A. BOUCOMONT, 1920 [p] // PARALECTOTYPUS ♀ desig. 2022 [p, fat] // J. SCHÖNFELD & D. ROHWEDDER [p, red label]".

Onthophagus (*Colobonthophagus*) *usurpator*
Holotype
INDIA • ♂ (NMPC): "INDIA / LIDIO CIPRIANI [p] // COORG/ PONNAMPET / M. GHAT. XII-1934 [p] // *Onthophagus* / *s.str.* ♂ // *usurpator* / Balth.[hw] / HOLOTYPUS [p] [handwritten corrections, pink label] // Mus. Nat. Pragae/ 65844 / Inv. [p, red label] // *O.* (*Colobonthophagus*) [p] / *urellus* BOUC. ♂ [hw] / J. SCHEUERN det. 19 [p] 96 [hw] // *usurpator* Balth. / syn. nov. [hw] / J. SCHEUERN det. [p] 96 [hw] // *O.* (*Colobonthophagus*) / *urellus* ♂ / BOUCOMONT 1919 / J. SCHÖNFELD det.2017 [p] // *O.* (*Colobonthophagus*) / *usurpator* / BALTHASAR 1960 / Syn. nov. / J. SCHÖNFELD det. 2017 [p]".

Other material examined (8 specs)
INDIA • Bombay [Mumbai], *Onth.* (*Colob.*) *urellus* BOUC. var. *nilgirinus* ARROW, ♀; 2♀ (cJS). S. Coorg-Ammatti_[Ammathi], 3100 ft., XI-1952 P.S. Nathan, Coll.R.I.Sc.N.B.; 1♂ (cJS). Ghates, R.P.F. Tabourel, VII-IX 1898, MUSÉUM PARIS 1952, Coll.: R. OBERTHÜR, *Onthophagus urellus* ♂, det. G. Frey, 1955; 1♂ (NHMB). NILGIRI HILLS, DEVALA, 3200 ft.,??.10.1960, (ex PSCH); 1♀ (cJS). Nilgiri Hills, H.-L. Andrewes, Andrewes Bequest., B-M. 1922-221, Coll.R.I.Sc.N.B.; 1♀ (RBINS). Tavargatti, Belgaum Div., ex Dehra Dun Coll. B.M.1931-2., B.M. Bhatia., *Onthophag. urellus* Bouc., G. J. Arrow det.; 1♂ (NHMB).
NEPAL • P: Mahakali, D: Kanchanpur, vic. Mahendranagar, Suklaphanta Nat. Res., Peters Area, Dsauda river, 160 m, 01. VII. 2017, # 17-19. leg. A. Weigel, second. forest riverside, 28°53'51"N 80°13'39"E, LFF [light trap]; 1♂ (NMEG).

Distribution
South India: Western Ghats, Myanmar, Nepal (first record, see material examined), first record of Palaearctic region (Fig. 6).

Remarks
The present study is based on the examination of eight specimens from South India (Western Ghats), one male from Nepal, and three MNHN syntypes (2 ♂♂, 1 ♀♀) of *Onthophagus* (*C.*) *urellus* from Pegu [Myanmar] of which we designate here a lectotype (♂). Arrow (1931: 298) described the variety *nilgirinus* from South India, Nilgiri Hills. There are only minor differences between the types and the material from South India. In the Cata-

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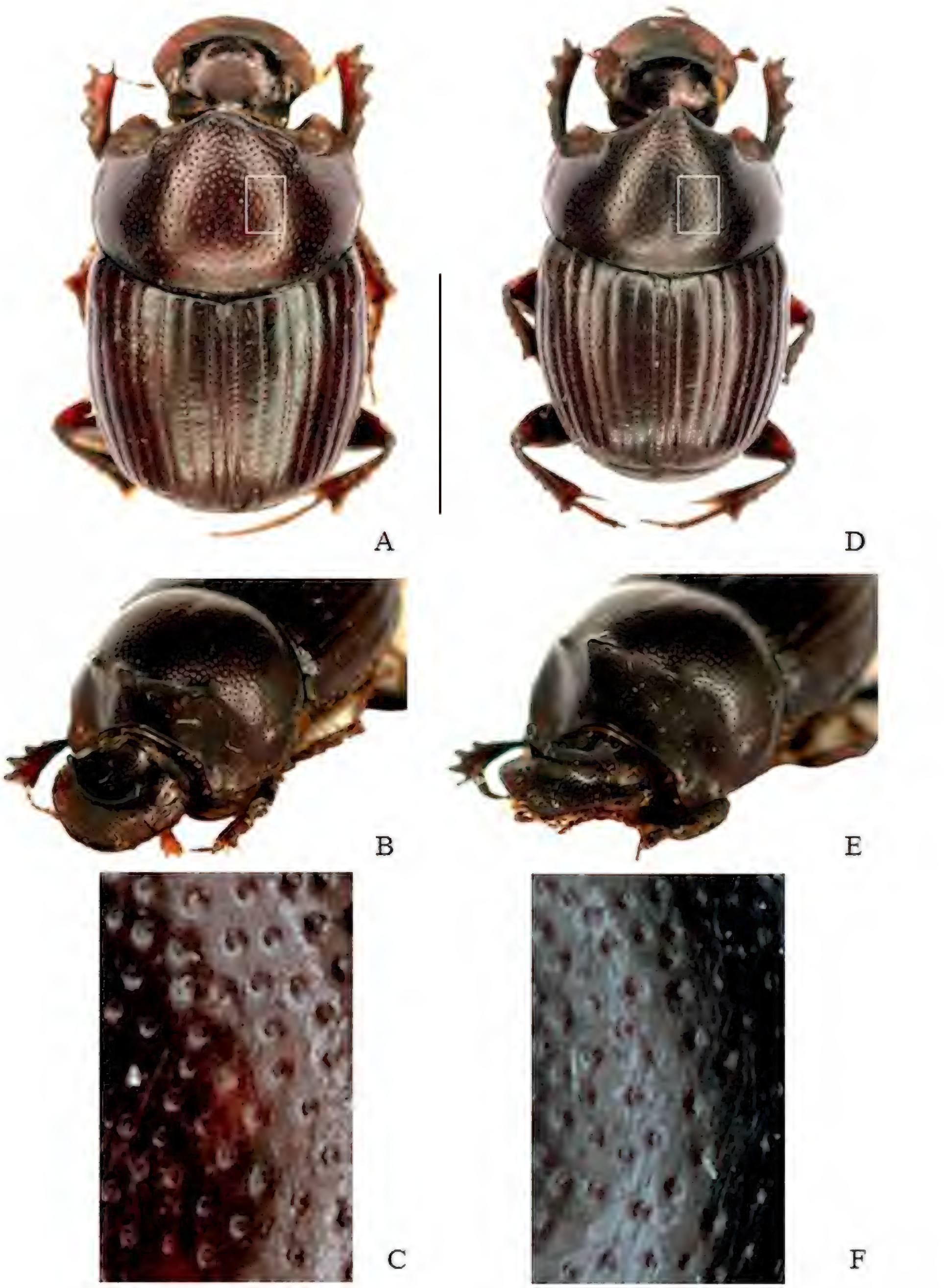


Fig. 3. A–C. *Onthophagus* (*Colobonthophagus*) *urellus* Boucomont, 1920, neotype, ♂. **D–F**. *Onthophagus* (*Colobonthophagus*) *usurpator* Balthasar, 1959 syn. nov., ♂. **A, D**. Habitus, dorsal view. **B, E**. Habitus, fronto-ventral view. **C, F**. Pronotal sculpture in dorso-lateral view (top) with close-up of the punctation. Scale = 5 mm.

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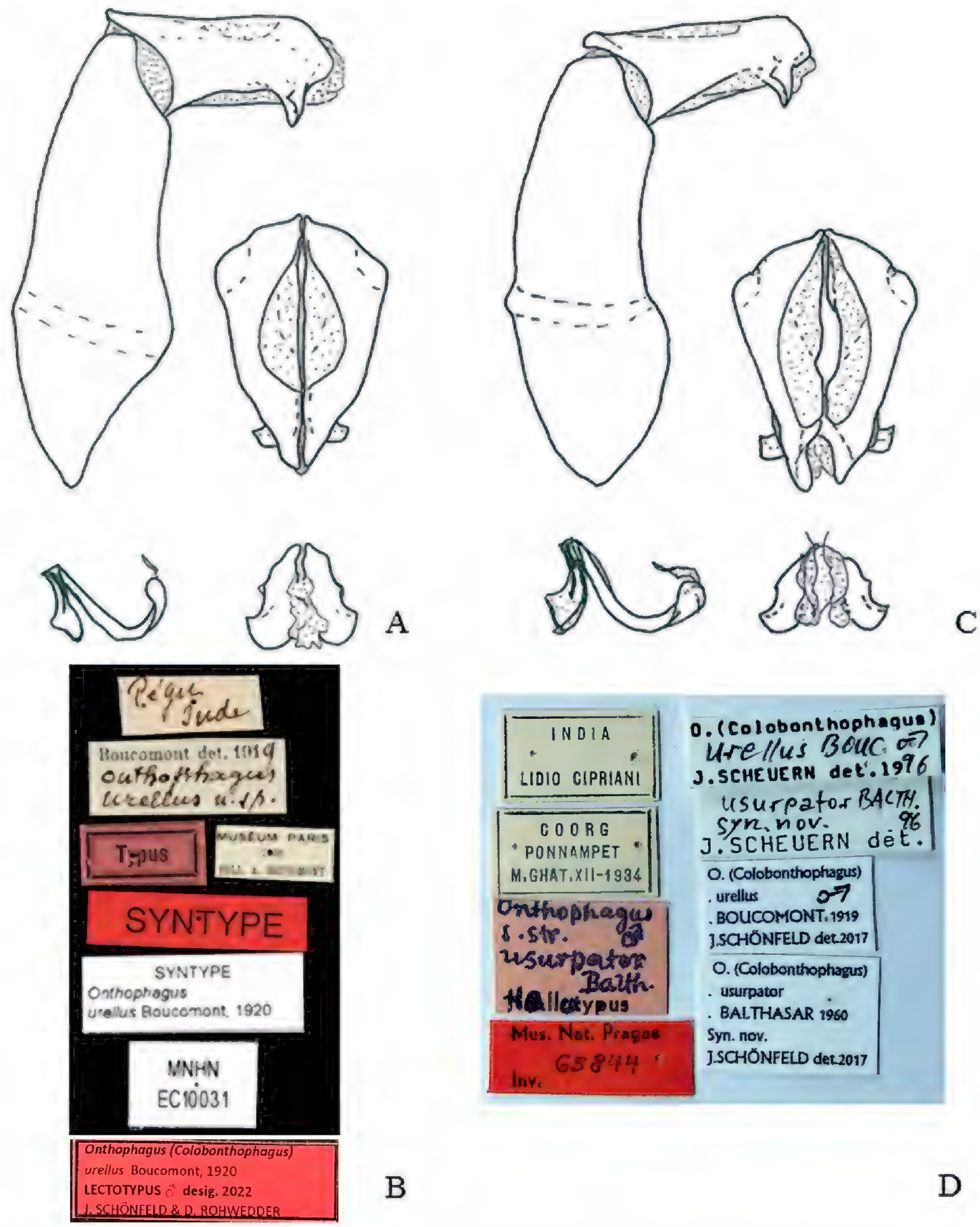


Fig. 4. A–B. *Onthophagus* (*Colobonthophagus*) *urellus* Boucomont, 1920, neotype, ♂. C–D. *Onthophagus* (*Colobonthophagus*) *usurpator* Balthasar, 1959 syn. nov., ♂. **A, C**. Left: Aedeagus, lateral view, lamella copulatrix, ventral view; right: Parameres, dorsal view & apical view. **B, D**. Labels.

logue of Life (2018, Annual Checklist) the var. *nilgirinus* is listed as synonym of the nominotypical species.

The taxon *Onthophagus usurpator* Balthasar, 1959 was described based on a single male (holotype) collected in South India, Ponnampet / M. Ghat. This examined holotype is conspecific with the lectotype of *Onthophagus* (*C.*) *urellus*. They share the shape of the aedeagus, pronotum, and punctation of the body. There are, however, considerable differences in the armature of the head, a phenomenon exhibited by most other species of the subgenus *Colobonthophagus* (Scheuern, 1995). Mittal (2015) has listed *Onthophagus* (*Colobonthophagus*) *urellus* Boucomont, 1920 from Tamil Nadu (Nilgiri Hils), Kerala (Thirunelly forest) and *Onthophagus usurpator* from Kerala, (Thirunelly forest). Karnataka (Coorg Ponnampet) was the type locality of *O.* (*C.*) *usurpator*.

In Nepal, *O.* (*C.*) *urellus* was collected using a light trap in young secondary forest with herds of cattle on the right side of the river (A. Weigel pers. comm.). This record provides the only ecological hint on this species. We determined specimens from Western Ghats as *O.* (*C.*) *urellus,* but we did not see any female of *O.* (*C.*) *usurpator* Balthasar, 1959.

The discontinuous distribution between southern India, Nepal and Myanmar needs to be verified by more material, especially from Myanmar or adjacent countries.

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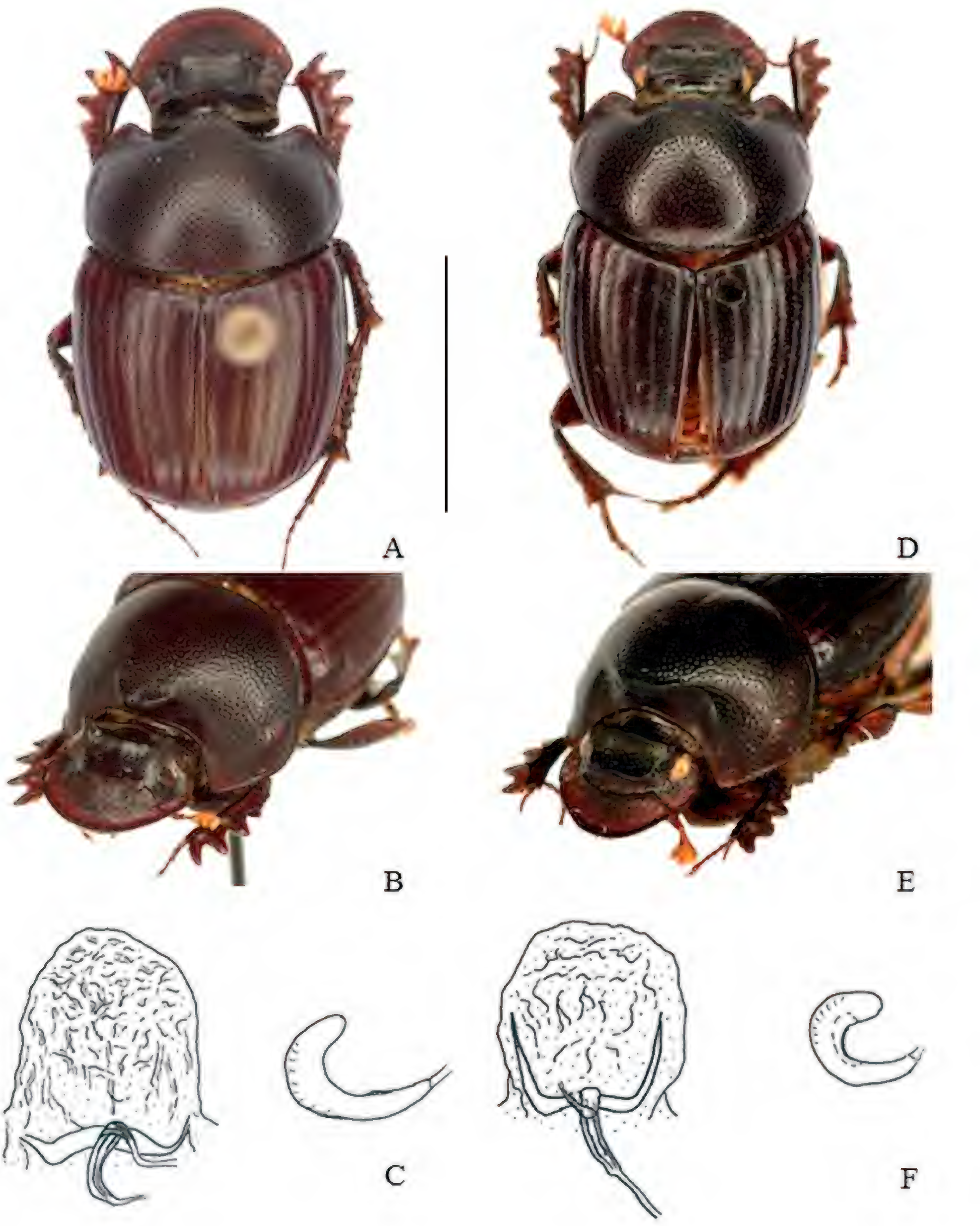


Fig. 5. A–C. *Onthophagus (Colobonthophagus) aenescens* (Wiedemann, 1823) ♀. **D–F** *Onthophagus (Colobonthophagus) urellus* Boucomont, 1920, paralectotype, ♀. **A, D**. Habitus, dorsal view. **B, E**. Habitus, fronto-ventral view. **C, F**. Vagina & spermathec. Scale = 5 mm.

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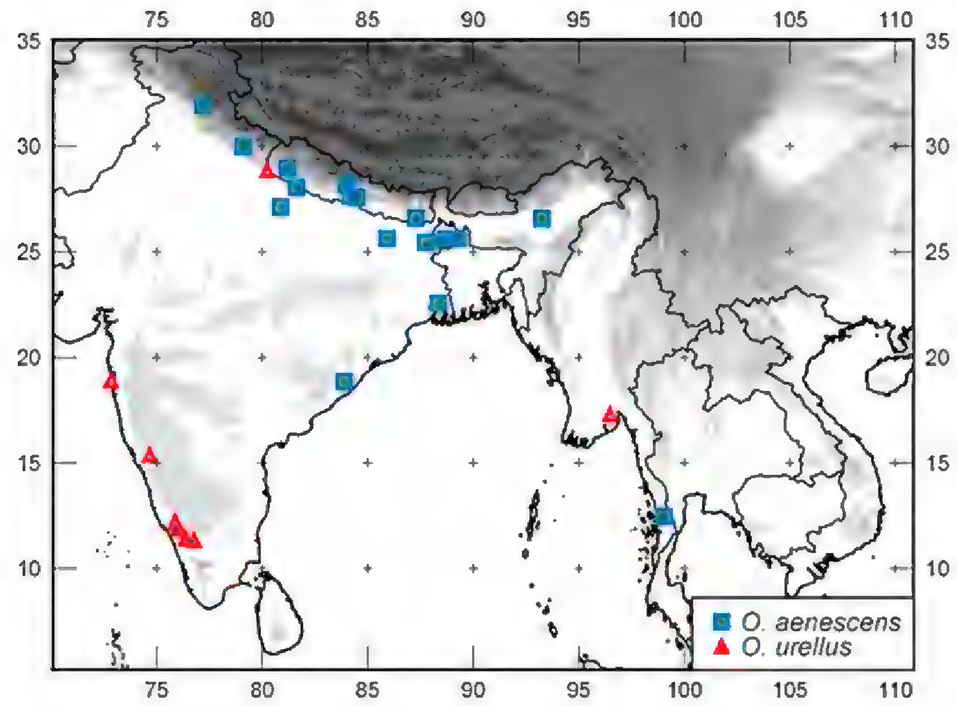


Fig. 6. Map. Blue square = *Onthophagus* (*Colobonthophagus*) *aenescens* (Wiedemann, 1823); red triangle = *Onthophagus* (*Colobonthophagus*) *urellus* Boucomont, 1920.

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